

Service Manual

31 - Aug - 2016

Product information

Calc management

- Calc clean reminder
- Calc clean solution: Smart Calc Clean
- Filtered water recommended
- Suitable for tap water

Easy to use

- Water tank capacity: 2200 ml
- Cord freedom (swivel): 180 degree cord freedom
- Refill any time
- Heat up time: 2 min
- Storage solution: Carry lock
- Hose storage: Hose storage compartment
- Filling and emptying water: Extra large filling hole

Calc management

- Calc clean solution: Double active calc clean
- Suitable for tap water

Fast & powerful crease removal

- Continuous steam output: 120 g/min
- Power: 2000 - 2400 W
- Soleplate: SteamGlide Ceramic
- Pump Pressure: Up to 5.5 bar
- Steam boost: 200 - 260 g
- Vertical steam

Sustainability

- Energy saving*: 20%
- User manual: 100% recycle paper

Service

- 2 - year worldwide guarantee

Steam boost

The steam boost can be used for vertical steaming and toughest creases.

Vertical steam

This Philips iron has a vertical steam function for crease removal in hanging fabrics.

Carry lock

Safe storage after ironing on the base. The cord can be wrapped around the body of the base. So that the appliance is easy to store.

Detachable water tank

A large detachable water tank for easy refill, strong steam boost and the SteamGlide Ceramic soleplate will help you reducing your ironing time significantly while carry lock and Smart CalcClean make ironing convenient

Product matrix

GC7703 - GC7715 / HI7716



Model Number	GC7703/2x	GC7705/3x	GC7710/2x	GC7715/8x	HI7716/2x
Colour	Renol Blue	Purple Magic	Workwear Dark Blue	Deep Black/ Purple Magic	Renol Blue
Power (220-240 V)	2000-2400 W	2000-2400 W	2000-2400 W	2000-2400 W	2000-2400 W
Bar (max pump)	5	5	5	5	5
Technology	No	Yes	No	Yes	No
Water tank	2.2 L detachable	2.2 L detachable	2.2 L detachable	2.2 L detachable	2.2 L detachable
Continuous steam output	120 g	120 g	120 g	120 g	120 g
Steam boost	200 g	220 g	250 g	250 g	260 g
Soleplate	SteamGlide Ceramic	SteamGlide Ceramic	SteamGlide Ceramic	SteamGlide Ceramic	SteamGlide Ceramic
Soleplate color	Silver Grey	Silver Grey	Silver Grey	Silver Grey	Silver Grey
Swivel	180 deg	180 deg	180 deg	180 deg	180 deg
Smart Calc Clean	Yes	Yes	Yes	Yes	Yes
Cord length exposed	1.8 m	1.8 m	1.8 m	1.8 m	1.8 m
Auto shut off (Design if flexible)	No	No	Yes	Yes	Yes
Height (cm)	26	26	26	26	26
Width (cm)	39.4	39.4	39.4	39.4	39.4
Depth (cm)	22.9	22.9	22.9	22.9	22.9
Weight (kg)	3.3	3.3	3.3	3.3	3.3

BUTTON 23
TOP COVER 17
CONTROL PCBA ASSY 1
CORD CLAMP 19
THROAT CLIP 12
POWER PCBA ASSY 18
SILICON PAD 20
SWITCH HOLE COVER 22
SPRING 21
STEAM KNOB 2
DIAL KNOB 16
HOUSING 3
POTENTIOMETER BOX 14
BRACKET 26
SILICON FIBER TUBE 9
STEAM TUBE CONNECTOR 6

Remove	BUTTON 23
Remove	Screw A1
Remove	Screw B1,B2
Remove	TOP COVER 17
Remove	Screw C1
Disassemble	Control PCBA connector
Disassemble	Control PCBA
Remove	CONTROL PCBA ASSY 1
Remove	Screw D1 - D3
Remove	Screw E1,E2
Remove	CORD CLAMP 19
Remove	THROAT CLIP 12
Remove	Closed end terminal x2
Remove	Screw F1
Remove	POWER PCBA ASSY 18
Remove	Power PCBA box
Remove	SILICON PAD 20
Remove	SWITCH HOLE COVER 22
Remove	SPRING 21
Remove	STEAM KNOB 2
Remove	DIAL KNOB 16
Remove	HOUSING 3
Remove	Screw G1,G2
Remove	POTENTIOMETER BOX 14
Remove	Potentiometer assy
Remove	BRACKET 26
Remove	SILICON FIBER TUBE 9
Remove	STEAM TUBE CONNECTOR 6

SEAL RING 13
BASE 29
THERMAL INSULATION 7

Remove	BUTTON 23
Remove	Screw A1
Remove	Screw B1,B2
Remove	TOP COVER 17
Remove	Screw C1
Disassemble	Control PCBA connector
Disassemble	Control PCBA
Remove	CONTROL PCBA ASSY 1
Remove	Screw D1 - D3
Remove	Screw E1,E2
Remove	CORD CLAMP 19
Remove	THROAT CLIP 12
Remove	Closed end terminal x2
Remove	Screw F1
Remove	POWER PCBA ASSY 18
Remove	Power PCBA box
Remove	SILICON PAD 20
Remove	SWITCH HOLE COVER 22
Remove	SPRING 21
Remove	STEAM KNOB 2
Remove	DIAL KNOB 16
Remove	HOUSING 3
Remove	Screw G1,G2
Remove	POTENTIOMETER BOX 14
Remove	Potentiometer assy
Remove	BRACKET 26
Remove	SILICON FIBER TUBE 9
Remove	STEAM TUBE CONNECTOR 6
Remove	Screw H1
Remove	Phenolic
Remove	Phenolic Screw J1,J2
Remove	SEAL RING 13
Remove	BASE 29
Remove	THERMAL INSULATION 7
Remove	Screw K1
Remove	Spring washer
Remove	Dosing seal

WATER TANK ASSY 30

INSULATION BASE 47

SILICON CUSHION 1, 48 (x3)

LOCK FASTENER 51

RELEASE BUTTON 1, 56

LOCATION FASTENER 53

BOLT BASE 52

UNIT BASE COVER 45

Remove **WATER TANK ASSY 30**
 Remove **Screw N1 - N15**
 Remove **Screw P1 - P4**
 Remove **INSULATION BASE 47**
 Remove **Screw Q1 - Q3**
 Remove **Bracket**
 Remove **SILICON CUSHION 1, 48 (x3)**
 Remove **Screw R1 - R3**
 Remove **Spring**
 Remove **LOCK FASTENER 51**
 Remove **RELEASE BUTTON 1, 56**
 Remove **Spring**
 Remove **LOCATION FASTENER 53**
 Remove **Spring**
 Remove **Screw S1 - S3**
 Remove **BOLT BASE 52**
 Remove **Screw T1,T2**
 Remove **UNIT BASE COVER 45**

WINDING ROLL COVER 43

THROAT CLAMP 10

PUMP 36

WINDING ROLL BODY 44

SWITCH ASM 41

CORD CLAMP 39

SAFETY VALVE 42

MAINS CORD 46

Remove **WATER TANK ASSY 30**
 Remove **Screw N1 - N15**
 Remove **Screw P1 - P4**
 Remove **INSULATION BASE 47**
 Remove **Screw Q1 - Q3**
 Remove **Bracket**
 Remove **SILICON CUSHION 1, 48 (x3)**
 Remove **Screw R1 - R3**
 Remove **Spring**
 Remove **LOCK FASTENER 51**
 Remove **RELEASE BUTTON 1, 56**
 Remove **Spring**
 Remove **LOCATION FASTENER 53**
 Remove **Spring**
 Remove **Screw S1 - S3**
 Remove **BOLT BASE 52**
 Remove **Screw T1,T2**
 Remove **UNIT BASE COVER 45**
 Remove **Water Tube Connector**
 Remove **Screw U1,U2**
 Remove **WINDING ROLL COVER 43**
 Remove **Silicon Tube**
 Remove **Cables**
 Remove **THROAT CLAMP 10**
 Remove **SILICON TUBE 9**
 Remove **PUMP 36**
 Remove **WINDING ROLL BODY 44**
 Remove **Screw V1,V2**
 Disassemble **Wires**
 Remove **SWITCH ASM 41**
 Remove **Screw W1,W2**
 Remove **CORD CLAMP 39**
 Remove **Screw X1 - X9**
 Remove **SAFETY VALVE 42**
 Remove **Connection Wire Assy**
 Remove **MAINS CORD 46**

SCREW CAP 49
RELEASE BUTTON 2, 32
WATER TANK FILTER 50
TANK HANDLE 31

Remove	Screw CAP 49
Remove	Screw L1
Remove	Screw M1
Remove	RELEASE BUTTON 2, 32
Remove	Spring 3
Remove	WATER TANK FILTER 50
Remove	TANK HANDLE 31
Remove	Seal Block

Service parts list
GC7703 - GC7715 / HI7716

Pos	Description	GC7703/2x Service code	GC7705/3x Service code	GC7710/2x Service code	GC7715/8x Service code
1	Control PCB Assy + Control PCB Box	9965 100 74531	9965 100 74531	9965 100 74531	9965 100 74531
2	Steam Knob	9965 100 74573	9965 100 74536	9965 100 74545	9965 100 74536
3	Housing	9965 100 74582	9965 100 74582	9965 100 74582	9965 100 74539
4	Knob Cylinder	9965 100 70238	9965 100 70238	9965 100 70238	9965 100 70238
5	Knob Spring	9965 100 70215	9965 100 70215	9965 100 70215	9965 100 70215
6	Steam Tube Connector	9965 100 70223	9965 100 70223	9965 100 70223	9965 100 70223
7	Thermal Insulation Pad	9965 100 70202	9965 100 70202	9965 100 70202	9965 100 70202
8	Soleplate ASM	9965 100 74528	9965 100 74528	9965 100 74528	9965 100 74528
9	Silicon Fiber Tube	9965 100 70198	9965 100 70198	9965 100 70198	9965 100 70198
10	Throat Clamp	9965 100 70224	9965 100 70224	9965 100 70224	9965 100 70224
11	Bend Connector	9965 100 70246	9965 100 70246	9965 100 70246	9965 100 70246
12	Throat Clip	9965 100 70203	9965 100 70203	9965 100 70203	9965 100 70203
13	Seal Ring 1	9965 100 70237	9965 100 70237	9965 100 70237	9965 100 70237
14	Potentiometer Box	9965 100 70227	9965 100 70227	9965 100 70227	9965 100 70227
15	Cord Bushing	9965 100 74581	9965 100 74544	9965 100 74557	9965 100 74544
16	Dial Knob	9965 100 74598	9965 100 74527	9965 100 74564	9965 100 74527
17	Top Cover + Lamp Cover	9965 100 74572	9965 100 74532	9965 100 74547	9965 100 74532
18	Power PCB ASM	9965 100 74524	9965 100 74524	9965 100 74524	9965 100 74524
19	Cord Clamp	9965 100 70247	9965 100 70247	9965 100 70247	9965 100 70247
20	Silicon Pad	9965 100 70225	9965 100 70225	9965 100 70225	9965 100 70225
21	Spring 4	9965 100 70239	9965 100 70239	9965 100 70239	9965 100 70239
22	Switch Hole Cover	9965 100 70194	9965 100 70194	9965 100 70194	9965 100 70194
23	Button	9965 100 73684	9965 100 73684	9965 100 73684	9965 100 73684
24	Connection Wire ASM	9965 100 74575	9965 100 74509	9965 100 74562	9965 100 74509
25	Iron Base Support	9965 100 70231	9965 100 70231	9965 100 70231	9965 100 70231
26	Bracket	9965 100 74583	9965 100 74587	9965 100 74555	9965 100 74511
27	Fuse Clamp	9965 100 74541	9965 100 74541	9965 100 74541	9965 100 74541
28	Wire Connector	9965 100 70228	9965 100 70228	9965 100 70228	9965 100 70228
29	Base	9965 100 74577	9965 100 74604	9965 100 74563	9965 100 74535
30	Water Tank Assy	9965 100 74571	9965 100 74526	9965 100 74548	9965 100 74526
31	Tank Handle	9965 100 74574	9965 100 74522	9965 100 74566	9965 100 74522
32	Release Button 2 (Water Tank Button)	9965 100 74558	9965 100 74558	9965 100 74558	9965 100 74518
33	Seal Ring 1	9965 100 74505	9965 100 74505	9965 100 74505	9965 100 74505
34	Bottom Foot	9965 100 70206	9965 100 70206	9965 100 70206	9965 100 70206
35	2 Pump Bracket 2	9965 100 70216	9965 100 70216	9965 100 70216	9965 100 70216
36	Pump (JYPC-4)	9965 100 74542	9965 100 74542	9965 100 74542	9965 100 74542
37	Unit Base Body	9965 100 74559	9965 100 74559	9965 100 74559	9965 100 74537
38	1 Pump Bracket 2	9965 100 70248	9965 100 70248	9965 100 70248	9965 100 70248
39	Cord Clamp	9965 100 70205	9965 100 70205	9965 100 70205	9965 100 70205

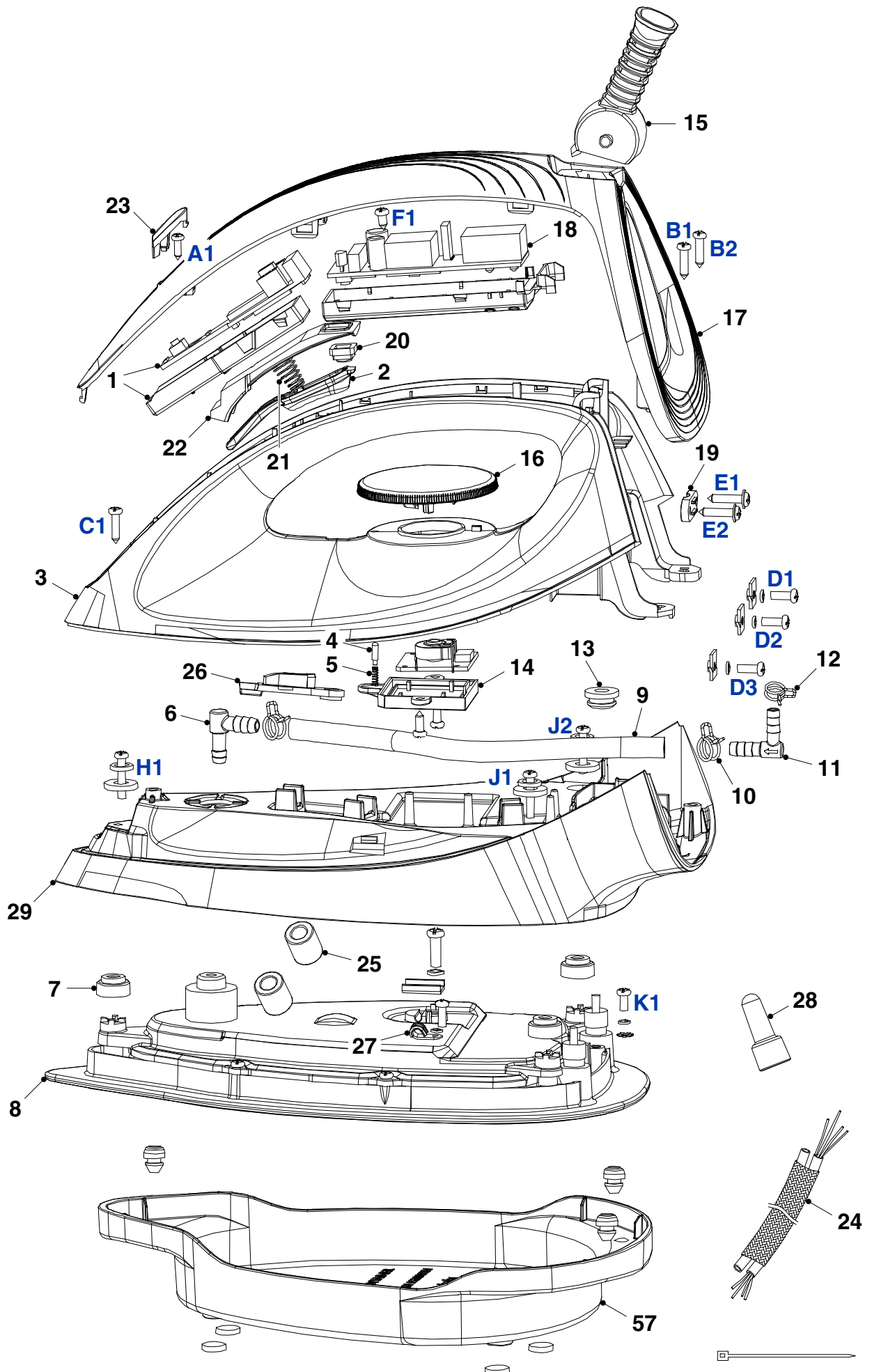
Pos	Description	GC7703/2x Service code	GC7705/3x Service code	GC7710/2x Service code	GC7715/8x Service code
40	Therminal Block	9965 100 70222	9965 100 70222	9965 100 70222	9965 100 70222
41	Switch Bracket & Rocker Switch	9965 100 70217	9965 100 70217	9965 100 70217	9965 100 70217
42	Safety Valve Assy	9965 100 74533	9965 100 74533	9965 100 74533	9965 100 74533
43	Wind Roll Cover	9965 100 74569	9965 100 74523	9965 100 74552	9965 100 74523
44	Winding Roll Body	9965 100 74576	9965 100 74517	9965 100 74561	9965 100 74517
45	Unit Base Cover	9965 100 74554	9965 100 74554	9965 100 74554	9965 100 74513
46a	Mains Cord	9965 100 74506	9965 100 74506	9965 100 74506	9965 100 74506
46b	Mains Cord	9965 100 74543	9965 100 74543	9965 100 74543	9965 100 74543
46c	Mains Cord	9965 100 74521	9965 100 74521	9965 100 74521	9965 100 74521
46d	Mains Cord	9965 100 74512	9965 100 74512	9965 100 74512	9965 100 74512
46e	Mains Cord	9965 100 74514	9965 100 74514	9965 100 74514	9965 100 74514
47	Insulation Base	9965 100 74584	9965 100 74586	9965 100 74549	9965 100 74516
48	Silicon Cushion 1	9965 100 70204	9965 100 70204	9965 100 70204	9965 100 70204
49	Screw Cap	9965 100 74568	9965 100 74593	9965 100 74556	9965 100 74508
50	Water Tank Filter	9965 100 74578	9965 100 74538	9965 100 74546	9965 100 74538
51	Lock Fastener	9965 100 74567	9965 100 74589	9965 100 74551	9965 100 74515
52	Bolt Base	9965 100 74534	9965 100 74534	9965 100 74534	9965 100 74534
53	Location Fastener	9965 100 74507	9965 100 74507	9965 100 74507	9965 100 74507
54	Spring 2	9965 100 74525	9965 100 74525	9965 100 74525	9965 100 74525
55	Spring 1	9965 100 74519	9965 100 74519	9965 100 74519	9965 100 74519
56	Release Button 1 (Lock Release Button)	9965 100 74553	9965 100 74553	9965 100 74553	9965 100 74607
57	Calc Clean Container + Sticker	9965 100 71433	9965 100 71433	9965 100 71433	9965 100 71433
58	Silicon Tube 1	9965 100 75535	9965 100 75535	9965 100 75535	9965 100 75535
59	Silicon Tube 2	9965 100 75536	9965 100 75536	9965 100 75536	9965 100 75536

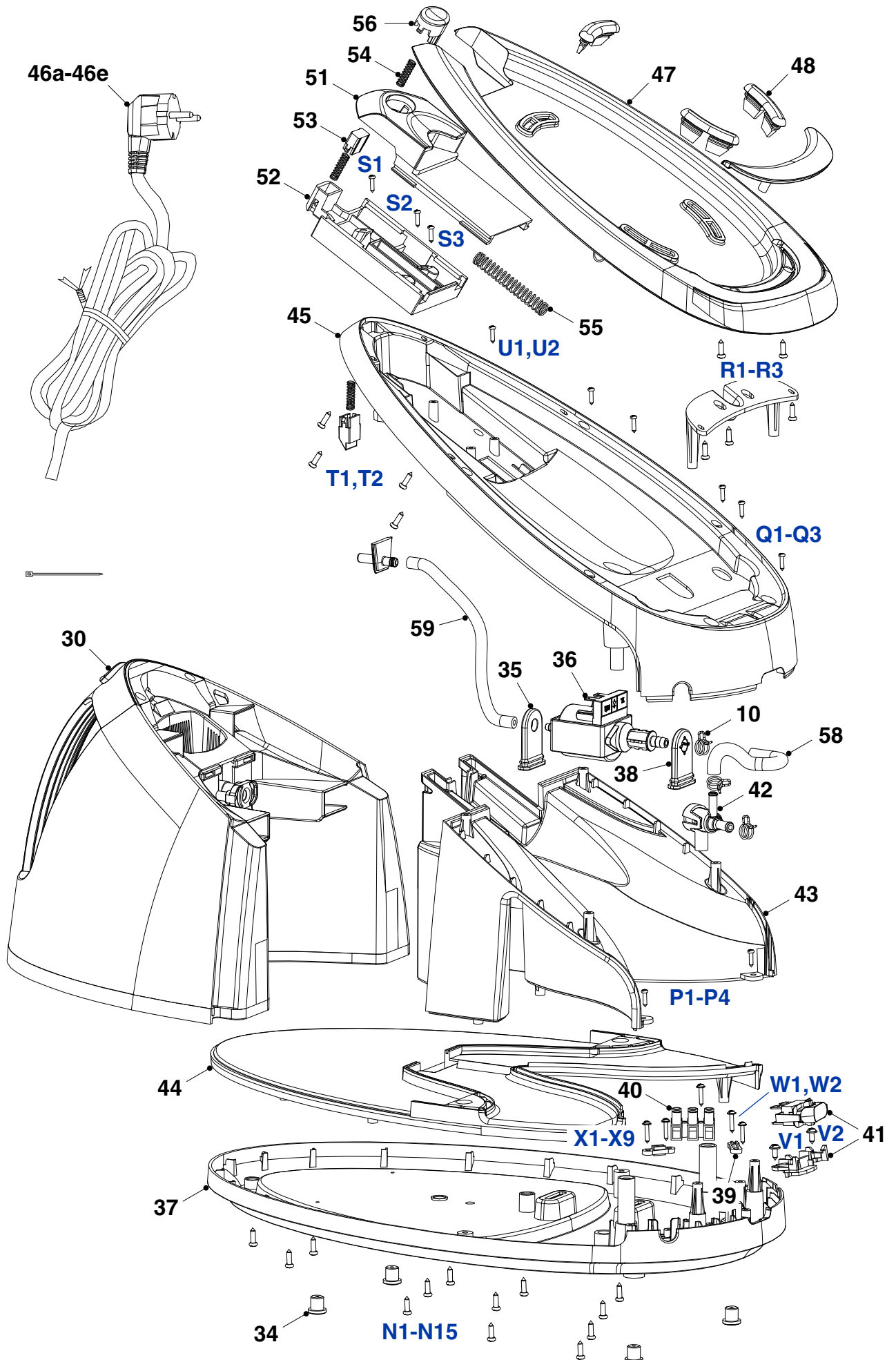
Service parts list

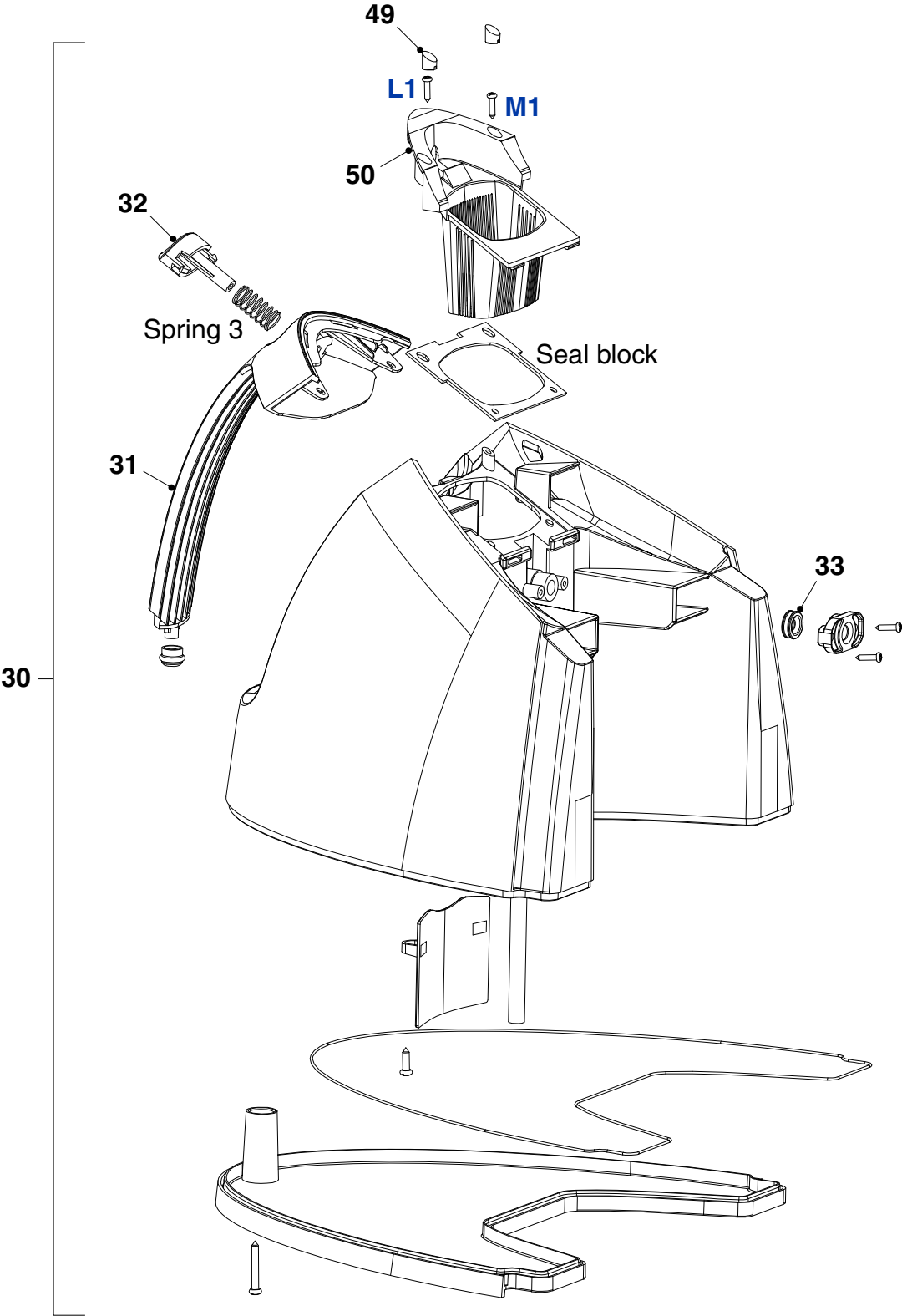
GC7703 - GC7715 / HI7716

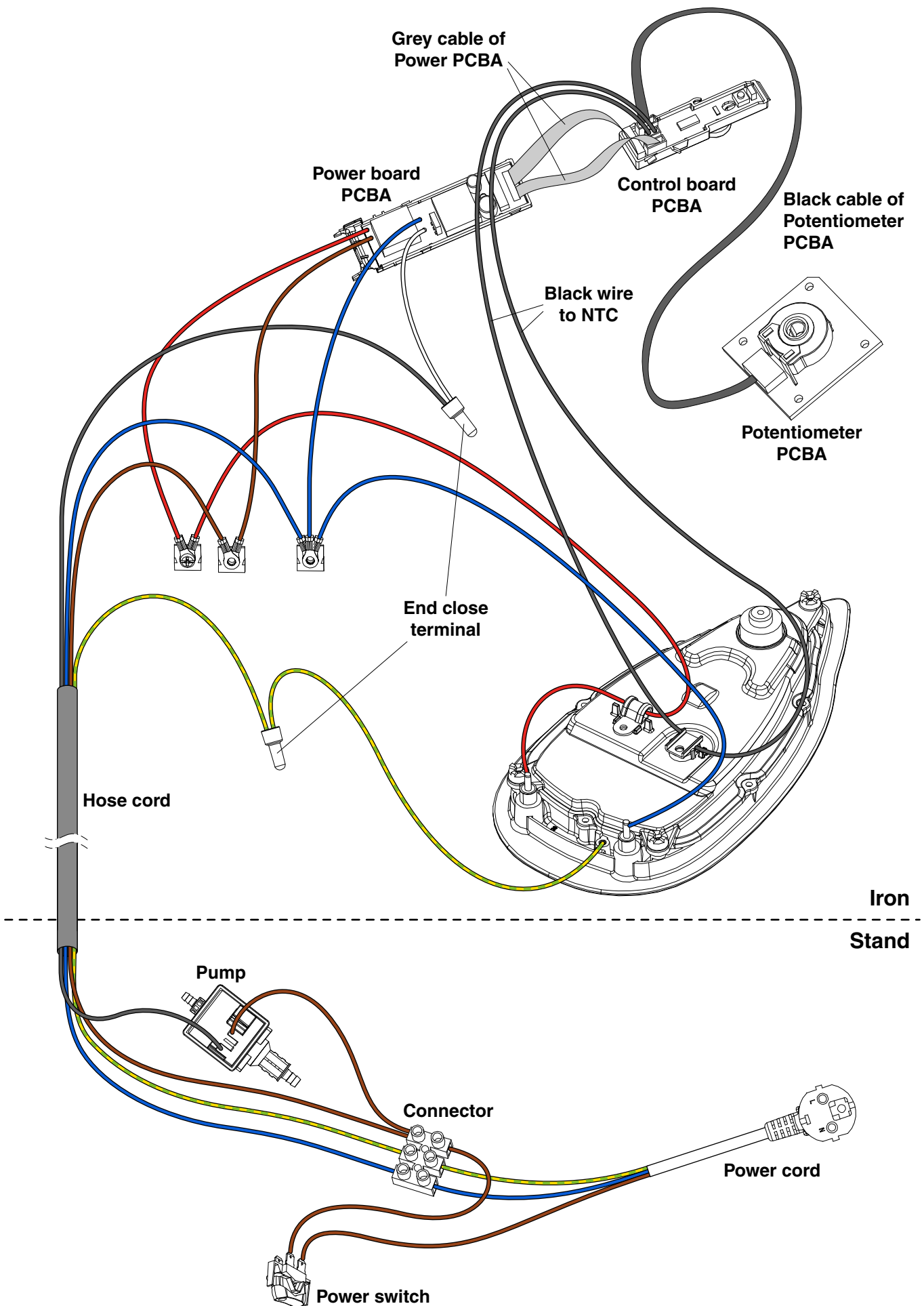
Pos	Description	HI7716/2x Service code
1	Control PCB Assy + Control PCB Box	9965 100 74531
2	Steam Knob	9965 100 74606
3	Housing	9965 100 74597
4	Knob Cylinder	9965 100 70238
5	Knob Spring	9965 100 70215
6	Steam Tube Connector	9965 100 70223
7	Thermal Insulation Pad	9965 100 70202
8	Soleplate ASM	9965 100 74528
9	Silicon Fiber Tube	9965 100 70198
10	Throat Clamp	9965 100 70224
11	Bend Connector	9965 100 70246
12	Throat Clip	9965 100 70203
13	Seal Ring	9965 100 70237
14	Potentiometer Box	9965 100 70227
15	Cord Bushing	9965 100 74591
16	Dial Knob	9965 100 74602
17	Top Cover + Lamp Cover	9965 100 74605
18	Power PCB ASM	9965 100 74524
19	Cord Clamp	9965 100 70247
20	Silicon Pad	9965 100 70225
21	Spring 4	9965 100 70239
22	Switch Hole Cover	9965 100 70194
23	Button	9965 100 73684
24	Connection Wire ASM	9965 100 74596
25	Iron Base Support	9965 100 70231
26	Bracket	9965 100 74587
27	Fuse Clamp	9965 100 74541
28	Wire Connector	9965 100 70228
29	Base	9965 100 74604
30	Water Tank Assy	9965 100 74588
31	Tank Handle	9965 100 74603
32	Release Button 2 (Water Tank Button)	9965 100 74558
33	Seal Ring	9965 100 74505
34	Bottom Foot	9965 100 70206
35	2 Pump Bracket 2	9965 100 70216
36	Pump (JYPC-4)	9965 100 74542
37	Unit Base Body	9965 100 74559
38	1 Pump Bracket 2	9965 100 70248
39	Cord Clamp	9965 100 70205

Pos	Description	HI7716/2x Service code
40	Therminal Block	9965 100 70222
41	Switch Bracket & Rocker Switch	9965 100 70217
42	Safety Valve Assy	9965 100 74533
43	Wind Roll Cover	9965 100 74592
44	Winding Roll Body	9965 100 74595
45	Unit Base Cover	9965 100 74554
46a	Mains Cord	9965 100 74506
46b	Mains Cord	9965 100 74543
46c	Mains Cord	9965 100 74521
46d	Mains Cord	9965 100 74512
46e	Mains Cord	9965 100 74514
47	Insulation Base	9965 100 74586
48	Silicon Cushion	9965 100 70204
49	Screw Cap	9965 100 74593
50	Water Tank Filter	9965 100 74601
51	Lock Fastener	9965 100 74589
52	Bolt Base	9965 100 74534
53	Location Fastener	9965 100 74507
54	(EC1739-A-80-02) Spring 2	9965 100 74525
55	(EC1739-A-80-01) Spring 1	9965 100 74519
56	Release Button 1 (Lock Release Button)	9965 100 74553
57	Calc Clean Container + Sticker	9965 100 71433
58	Silicon Tube 1	9965 100 75535
59	Silicon Tube 2	9965 100 75536







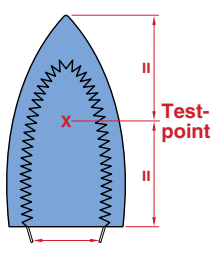


Note: Color of lines represent actual color of wires

- Due to the high wattage of the iron, only the specified cord set must be used.
- Should damage be observed on the **MAINS CORD 46**, it must be replaced. Continued usage is not allowed.
- After the product has been repaired, it should function properly and has to meet the safety requirements & legal regulation as laid down & officially established at this moment.
- The following tests are common checks that are conducted on a repaired product before it is returned to the consumer.

1. Soleplate temperature

Check the soleplate temperature is within IEC requirement.

Soleplate temperature (Deg C)		Materials, for example	
Minimum	Maximum		
170	230	All fabric types	

2. Leakage current

Check that leakage current is within IEC requirement.

Measure leakage current between LIVE/NEUTRAL & EARTH.

IEC requirement is that at 230 V supply, the EARTH leakage current must be less than 0.75 mA.

3. Water leakage / Functionality

Check that there is no water leakage from any part of product during operation.

Check that the functionality of the product (product dependent) eg. Steaming, variable steam, SOS, ASO etc is working properly.

4. Loose part

Check that there are no loose parts eg. Extra screws in the product that can cause short-circuit or product malfunctions.

5. Fuse open circuit

When replacing fuse, to also service the water tubes which is probably choked with calc.

6. PCBAs ESD control

All failed PCBAs including to be packed with ESD bags for shipment.

7. Screws

Screws should be the defined screws in terms of length and material used.

8. Self-Check mode

8.1. Introduction of Self-Check mode

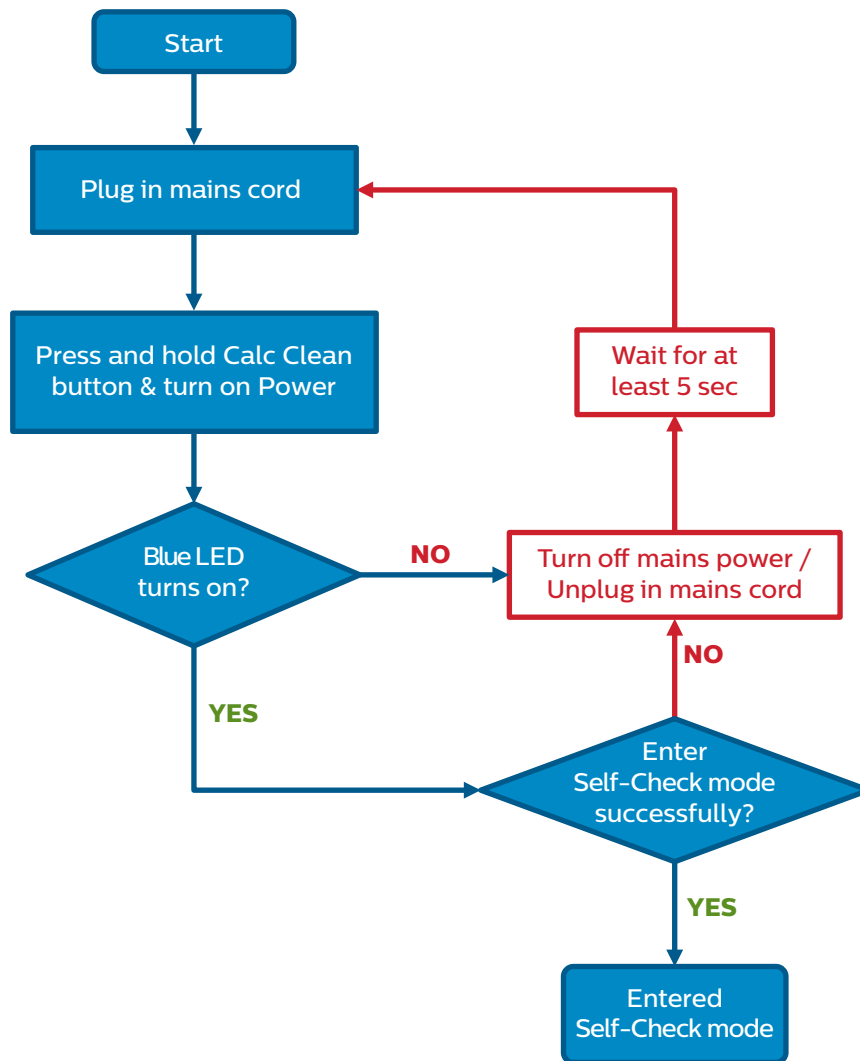
Self-Check mode is **NOT** an exhaustive diagnosis, but a quick preliminary check on all the hardware function.

Further test and troubleshooting may still be required by Service Center to identify the root cause.

8.2. Before start Self-Check mode, please do the following checking

1. Make sure Soleplate is cold (<100 °C)
2. Water tank with water above min mark

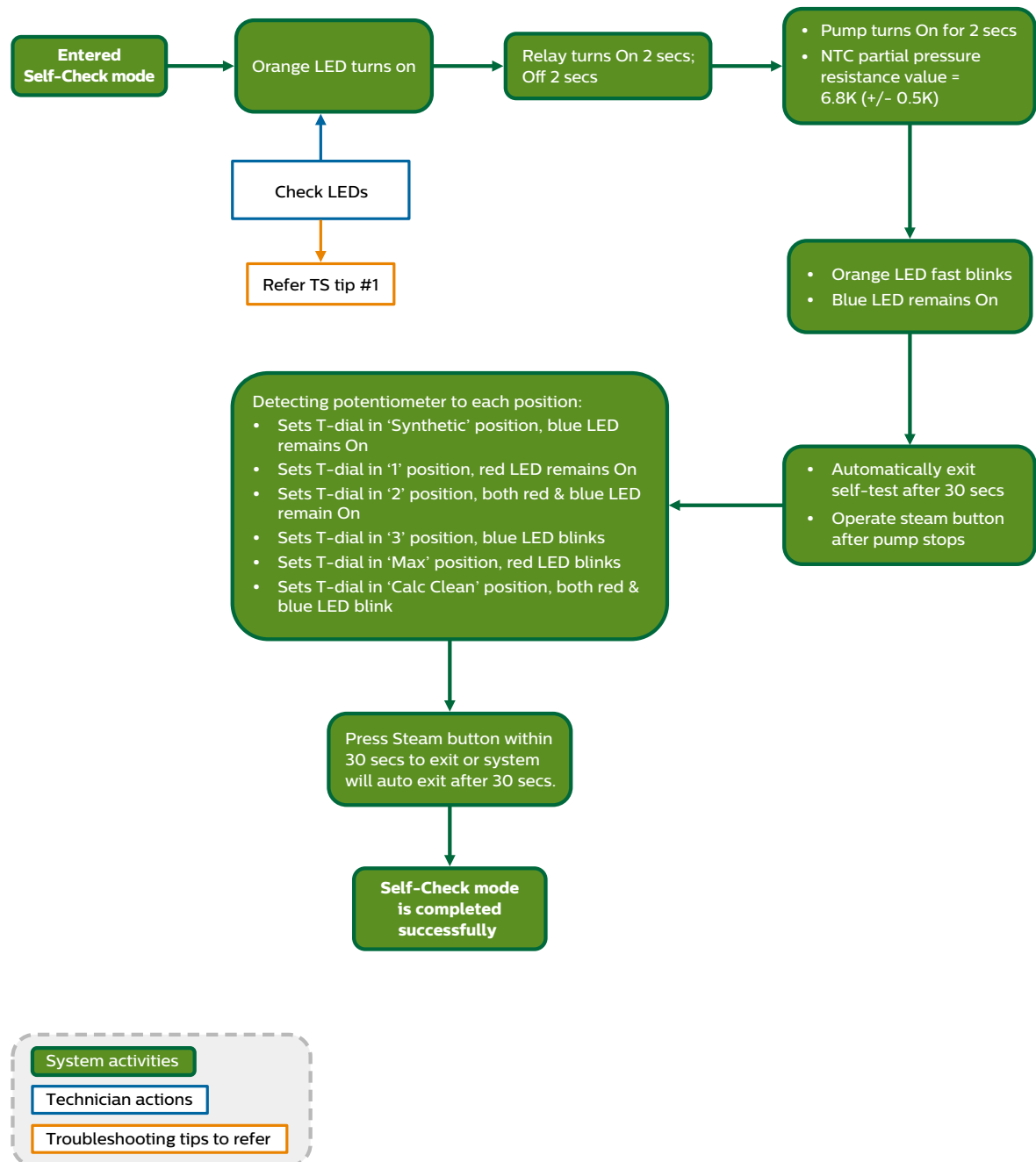
8.3. Enter Self-Check mode Process Flow Chart



If fail to enter Self-Check mode, could be due to:

1. No power to PCBA
2. Buttons malfunction
3. Zero crossing circuit malfunction

8.4. Perform Self-Check mode Process Flow Chart



8.5. Troubleshooting Tips

1. LEDs do not light up as specified, fault should be on PCBA;
2. Zero cross circuit malfunction, fault should be on PCBA;
3. No heat up/Power in 2s relay, fault could be ON PCBA or heater, fuse;
4. No pumping sound, fault should be on pump, or PCBA;
5. T-dial checking LED do not light up as specified, fault should be on potentiometer PCBA;

TS tip #1

Record History

GC7703 - GC7715 / HI7716

Version 1: Improvement made on Nov. 2015:

Updated Self-Check Mode
Updated Wiring Diagram
Updated Record History

Version 2: Improvement made on Jan. 2016:

Added HI7716

Version 3: Improvement made on Jun. 2016:

In parts list and exploded view added Pos. 58 and 59 for all models

Version 4: Improvement made on Aug. 2016:

Updated Parts List